

INVENTOR NAME

Venci 10/706,567

3/3

11/22/2004

=> fil hcap

SEARCH

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FILE COVERS 1980 TO 2003.

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<http://www.cas.org/ONLINE/DBSS/registryss.html>

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=> d que 18

| | | | | | | | |
|----|---|--------|-----|--------------|--------|--------|--|
| L1 | (| 10) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | SACKRISON, J?/AU |
| L2 | (| 4021) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | MILLER, A?/AU |
| L3 | (| 7) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | KAMERUD, J?/AU |
| L4 | (| 25) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | ERSFELD, D?/AU |
| L5 | (| 841) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | OLSON, G?/AU |
| L6 | (| 168) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | MACFARLANE, G?/AU |
| L7 | (| 26861) | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | ?VITAMIN?(2A) D |
| L8 | | 15 | SEA | FILE=HCAPLUS | ABB=ON | PLU=ON | (L1 OR L2 OR L3 OR L4 OR L5 OR L6) AND L7 |

=>

(FILE 'MEDLINE, BIOSIS, PASCAL, CABA, JICST-EPLUS, EMBASE, ANABSTR,

BIOTECHNO, BIOTECHDS, CONFSCI, WPIX' ENTERED AT 15:40:59 ON 22 NOV 2004)

=> d que 1137

L126 49 SEA SACKRISON, J?/AU
L127 16851 SEA MILLER, A?/AU
L128 40 SEA KAMERUD, J?/AU
L129 88 SEA ERSFELD, D?/AU
L130 2460 SEA OLSON, G?/AU
L131 1271 SEA MACFARLANE, G?/AU
L132 3 SEA (RO 8-8892) OR (RO(1W) 8(1W) 8892) OR (U 32070E) OR (U(1W) 32070E)
L133 7037 SEA ?CALCIDIDIOL? OR ?CALCIFEDIOL? OR ?CALDEROL? OR ?DEDROGYL? OR ?DIDROGYL? OR ?HIDROFEROL?
L134 148543 SEA ?SECOCHOLEST? OR (25(1W) HCC) OR 25HCC OR ?CHOLECALCIF? OR (?VITAMIN? D) OR (?VITAMIN?(1W) D) OR (?VITAMIN? D3) OR (?VITAMIN(1W) D3?) OR ((D OR D3) (3A) ?VITAMIN?)
L135 68 SEA (L126 OR L127 OR L128 OR L129 OR L130 OR L131) AND ((L132 OR L133 OR L134))
L136 35 DUP REM L135 (33 DUPLICATES REMOVED)
L137 23 SEA L136 AND (?ASSAY? OR ?TRACE? OR TEST? OR ?ANALY? OR ?DETECT?)

=> dup rem 18 1137

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PROCESSING COMPLETED FOR L8

PROCESSING COMPLETED FOR L137

L138 27 DUP REM L8 L137 (11 DUPLICATES REMOVED)
ANSWERS '1-15' FROM FILE HCAPLUS
ANSWER '16' FROM FILE MEDLINE
ANSWERS '17-23' FROM FILE BIOSIS
ANSWER '24' FROM FILE CABA
ANSWERS '25-26' FROM FILE EMBASE
ANSWER '27' FROM FILE ANABSTR

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- CONTINUE? (Y)/N:y

L138 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:550647 HCAPLUS

DOCUMENT NUMBER: 141:50154

TITLE: Vitamin D assay

INVENTOR(S): Sackrison, James L.; Miller, Andrew
; Kamerud, John; Ersfeld, Diana L.
; Olson, Gregory T.; MacFarlane, Gordon
D.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 4 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| US 2004132104 | A1 | 20040708 | US 2003-706567 | 20031112 |
| WO 2004063704 | A2 | 20040729 | WO 2004-US117 | 20040105 |

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB,
BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR,
CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG,
ES, ES, FI, FI, GB, GD, GE, GE, GH, GH, GH, GM, HR, HR, HU, HU,
ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ,
KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN,
MW, MX, MX, MZ

PRIORITY APPLN. INFO.: US 2003-438385P P 20030107
US 2003-706567 A 20031112

AB A method of assaying a sample of blood or blood components for the
presence of 25-hydroxy-vitamin D comprising: (a)
lowering the pH of the sample to 5.5 or less to dissociate the 25-hydroxy-
vitamin D from vitamin D binding
proteins; and (b) determining the concentration of 25-hydroxy-vitamin
D in the sample. The vitamin D binding
proteins are not removed from the sample.

ED Entered STN: 09 Jul 2004

L138 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2004:755689 HCAPLUS

TITLE: Analytical and clinical validation of the 25 OH
vitamin D assay for the LIAISON
automated analyzer

AUTHOR(S): Ersfeld, Diana L.; Rao, D. Sudhaker; Body,
Jean-Jacques; Sackrison, James L.;
Miller, Andrew B.; Parikh, Nayana; Eskridge,
Tar Lisha; Polinske, Amy; Olson, Gregory T.;
MacFarlane, Gordon D.

CORPORATE SOURCE: Research and Development, DiaSorin Inc., Stillwater, MN, 55082, USA

SOURCE: Clinical Biochemistry (2004), 37(10), 867-874
CODEN: CLBIAS; ISSN: 0009-9120

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Objective: Methods to assess serum 25 OH **vitamin D** have improved in accuracy, precision, and ease of use. We describe the anal. and clin. validation of an automated, antibody- and microparticle-based, chemiluminescent immunoassay method for the determination of 25 OH **vitamin D**. Design and methods: The LIAISON 25 OH **Vitamin D** assay is a rapid automated method with first results available in 40 min, and a subsequent throughput of 180 samples per h. Assay performance characteristics of precision and recovery were determined according to the National Committee for Clin. Laboratory Stds. (NCCLS) protocols. Anal. and functional sensitivity were determined according to standard protocols. Samples for method comparison studies were obtained from routine clin. samples submitted for 25 OH **Vitamin D** determination or from apparently healthy normal volunteers. Results: The detection limit for this assay was <2.0 nmol/L across three lots of materials. Functional sensitivity (inter-assay imprecision <20%) was 17.5 nmol/L. Total imprecision (CV) was <15% at 42.5-137.5 nmol/L. Mean (SD) recovery was 101% (13%). The assay was linear on dilution. Comparison with RIA (RIA) yielded acceptable correlation ($r = 0.88$) and clin. equivalence in the range from 37.5 to 150 nmol/L. Conclusions: The LIAISON 25 OH **Vitamin D** assay is a rapid, accurate, and precise tool for the measurement of 25 OH **vitamin D**.

ED Entered STN: 16 Sep 2004

REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L138 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 2004:522273 HCAPLUS

DOCUMENT NUMBER: 141:242563

TITLE: **Hypovitaminosis D** in a normal, apparently healthy urban European population

AUTHOR(S): **MacFarlane, G. D.; Sackrison, J. L.**
; Body, J. J.; Ersfeld, D. L.; Fenske, J. S.; Miller, A. B.

CORPORATE SOURCE: Director of Research and Development, DiaSorin Inc., Stillwater, MN, 55082-0285, USA

SOURCE: Journal of Steroid Biochemistry and Molecular Biology (2004), 89-90(1-5), 621-622
CODEN: JSBBEZ; ISSN: 0960-0760

PUBLISHER: : Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Serum 25 OH **Vitamin D** (25 OH D) concns. generally vary with latitude, season, and the composition of the population studied. There is a growing recognition that rather than a seasonal specific decline in serum 25 OH **Vitamin D**, a significant proportion of the population may exhibit asymptomatic subclin. **Vitamin D** insufficiency. **Vitamin D** insufficiency was described in populations at risk, such as nursing home residents and the homebound elderly. The authors assessed a population of normal, apparently healthy volunteers at a single European urban center for 25 OH **Vitamin**

D sufficiency. Serum 25 OH D concns. were determined using an automated LIAISON 25 OH **Vitamin D** assay. For the purposes of this study, **Vitamin D** insufficiency was defined as a serum 25 OH **Vitamin D** concentration of <15 ng/mL. Of the total population (n = 126) 34% exhibited 25 OH **Vitamin D** concns. of <15 ng/mL. The mean \pm S.D. serum 25 OH **Vitamin D** concentration among the total, sufficient, and insufficient populations was 19.4 ± 7.7 , 23.6 ± 6.4 , and 12.1 ± 2.3 ng/mL. From these data, the authors conclude that 25 OH **Vitamin D** insufficiency is more common than previously thought, and is not restricted to high-risk groups.

ED Entered STN: 29 Jun 2004

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L138 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 4

ACCESSION NUMBER: 2004:522272 HCAPLUS

DOCUMENT NUMBER: 141:204992

TITLE: Evaluation of 25 OH **Vitamin D** in chronic renal failure and end stage renal disease subjects

AUTHOR(S): **MacFarlane, G. D.; Sackrison, J. L.**
; **Ersfeld, D. L.; Miller, A. B.;**
Bucklen, A.

CORPORATE SOURCE: Director of Research and Development, DiaSorin Inc.,
Stillwater, MN, 55082-0285, USA

SOURCE: Journal of Steroid Biochemistry and Molecular Biology
(2004), 89-90(1-5), 619-620
CODEN: JSBBEZ; ISSN: 0960-0760

PUBLISHER: : Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Anal. of laboratory samples from chronic renal failure (CRF) and end stage renal

disease (ESRD) patients can be problematic. Current HPLC and RIA methods for the determination of 25 OH **Vitamin D** involve sample extraction. However, the differences between a normal and CRF or ESRD matrix can lead to interference or inaccuracy in non-extracted, automated methods now available. The objective of this study was to assess the accuracy of the non-extracted LIAISON 25 OH **Vitamin D** assay in the anal. of CRF and ESRD samples as compared against RIA as reference. Samples were collected from regional reference labs. and analyzed in both the LIAISON 25 OH **Vitamin D** assay and the DiaSorin 25 OH **Vitamin D** RIA. By Student's t test, no significant difference was observed between the RIA values and the LIAISON values ($P = 0.07$ CRF; $P = 0.28$ ESRD). The linear regression anal. resulted in the equations: CRF : $LIAISON = 0.91(RIA) + 0.6$; $r = 0.82$ and ESRD: $LIAISON = 0.93(RIA) - 0.6$; $r = 0.78$. From these data we conclude that the LIAISON 25 OH **Vitamin D** assay correctly assesses the 25 OH **Vitamin D** status of CRF and ESRD patients.

ED Entered STN: 29 Jun 2004

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L138 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2003:13970 HCAPLUS

DOCUMENT NUMBER: 138:231854

TITLE: Analytical and clinical validation of a radioimmunoassay for the measurement of 1,25 dihydroxy **vitamin D**

AUTHOR(S): Clive, Diana R.; Sudhaker, D.; Giacherio, Donald;
Gupta, Manjula; Schreiber, Martin J.; **Sackrison,**
James L.; MacFarlane, Gordon D.

CORPORATE SOURCE: DiaSorin, Inc., Stillwater, MN, 55082, USA

SOURCE: Clinical Biochemistry (2002), 35(7), 517-521
CODEN: CLBIAS; ISSN: 0009-9120

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Objectives: The anal. and clin. validation of the DiaSorin 1,25
dihydroxyvitamin D RIA is described. Design and
Methods: The anal. parameters assessed included anal. sensitivity, dilution
linearity, intra- and inter-assay precision, recovery, specificity, and
interference studies. Where appropriate, assessments were performed
according to NCCLS guidelines. The clin. validation assessed normal
individuals and end-stage renal disease patients. Results: The anal.
sensitivity of the assay is < 2.0 pg/mL or < 4.8 pM. The assay is
specific for both 1,25 dihydroxyvitamin D₂ and D₃. Recovery ranged from
97% to 108% for spiked samples. Intra-assay precision, as %CV, ranged
from 7% to 11%, while inter-assay precision was 12% to 15%. No
interference was observed from bilirubin, cholesterol, Hb, or triglycerides.
Clin. validation demonstrated complete discrimination between normal and
ESRD populations. Conclusions: These data demonstrate that the DiaSorin
1,25 (OH)₂ **vitamin D** RIA is a robust, accurate, and
precise tool for the assessment of 1,25 (OH)₂ **vitamin D**

ED Entered STN: 08 Jan 2003

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS
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L138 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 2001:95302 HCAPLUS

DOCUMENT NUMBER: 134:221909

TITLE: Efficacy and safety of vitamin D₃ intake exceeding the
lowest observed adverse effect level

AUTHOR(S): Vieth, Reinhold; Chan, Pak-Cheung R.; **MacFarlane,**
Gordon D.

CORPORATE SOURCE: Department of Pathology and Laboratory Medicine, The
University of Toronto, Toronto, ON, Can.

SOURCE: American Journal of Clinical Nutrition (2001), 73(2),
288-294
CODEN: AJCNAC; ISSN: 0002-9165

PUBLISHER: American Society for Clinical Nutrition

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The Food and Nutrition Board of the National Academy of Sciences states
that 95 µg **vitamin D/d** is the lowest
observed adverse effect level (LOAEL). Our objective was to assess the
efficacy and safety of prolonged vitamin D₃ intakes of 25 and 100 µg
(1000 and 4000 IU)/d. Efficacy was based on the lowest serum 25-hydroxy-
vitamin D [25(OH)D] concentration achieved by subjects taking
vitamin D₃; potential toxicity was monitored by measuring serum calcium
concns. and by calculating urinary calcium-creatinine ratios. Healthy men and
women (n = 61) aged 41 ± 9 y (x ± SD) were randomly assigned to
receive either 25 or 100 µg **vitamin D₃/d** for 2-5
mo, starting between Jan. and Feb. Serum 25(OH)D was measured by RIA.
Baseline serum 25(OH)D was 40.7 ± 15.4 nmol/L (x ± SD). From 3 mo
on, serum 25(OH)D plateaued at 68.7 ± 16.9 nmol/L in the 25-µg/d
group and at 96.4 ± 14.6 nmol/L in the 100-µg/d group. Summertime
serum 25(OH)D concns. in 25 comparable subjects not taking vitamin D₃ were

46.7 \pm 17.8 nmol/L. The min. and maximum plateau serum 25(OH)D concns. in subjects taking 25 and 100 μ g **vitamin D3/d** were 40 and 100 nmol/L and 69 and 125 nmol/L, resp. Serum calcium and urinary calcium excretion did not change significantly at either dosage during the study. The 100- μ g/ d dosage of **vitamin D3** effectively increased 25(OH)D to high-normal concns. in practically all adults and serum 25(OH)D remained within the physiol. range; therefore, we consider 100 μ g **vitamin D3/d** to be a safe intake.

ED Entered STN: 08 Feb 2001

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L138 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 7

ACCESSION NUMBER: 1996:227486 HCAPLUS

DOCUMENT NUMBER: 124:279337

TITLE: Quantification of circulating 1,25-**dihydroxyvitamin D** by radioimmunoassay with an 125I-labeled tracer

AUTHOR(S): Hollis, Bruce W.; **Kamerud, John Q.**; Kurkowski, Anthony; Beaulieu, Jacqueline; Napoli, Joseph L.

CORPORATE SOURCE: Departments Pediatrics, Biochemistry Molecular Biology, Medical University South Carolina, Charleston, SC, 29425, USA

SOURCE: Clinical Chemistry (Washington, D. C.) (1996), 42(4), 586-92

CODEN: CLCHAU; ISSN: 0009-9147

PUBLISHER: American Association for Clinical Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We report here the first RIA for 1,25-**dihydroxyvitamin D** utilizing a radioiodinated (125I) tracer. This is also the first validated RIA for 1,25-**dihydroxyvitamin D** [1,25(OH)2D] that does not require sample prepurifn. by HPLC before the binding assay. The assay involves acetonitrile extraction, treatment of the crude extract supernate with sodium periodate, extraction and purification of endogenous 1,25(OH)2D by solid-phase chromatog., and finally, quantification by RIA. Calibrators were prepared in stripped human serum and processed exactly the same as samples, eliminating the need for internal control for procedural losses of endogenous 1,25(OH)2D. The assay consists of a 2-h room temperature incubation with the primary antibody, a 20-min incubation with a second antibody, and separation of bound from free by centrifugation. Assay results can be in hand within 5 h. The detection limit of the assay is 2.4 ng/L 1,25-dihydroxyvitamin D3. Results compare well with those from an accepted radioreceptor assay. Sample pretreatment with sodium periodate is absolutely essential before quantification by RIA; otherwise, concns. of endogenous 1,25(OH)2D may be greatly overestimated.

ED Entered STN: 18 Apr 1996

L138 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 8

ACCESSION NUMBER: 1993:404328 HCAPLUS

DOCUMENT NUMBER: 119:4328

TITLE: Determination of **vitamin D** status

AUTHOR(S): Hollis, Bruce W.; **Kamerud, John Q.**; Selvaag, Sandra R.; Lorenz, Jeffrey D.; Napoli, Joseph L.

CORPORATE SOURCE: Dep. Pediatr. Biochem. Mol. Biol., Med. Univ. South Carolina, Charleston, SC, 29425, USA

SOURCE: Clinical Chemistry (Washington, DC, United States) (1993), 39(3), 529-33

DOCUMENT TYPE: Journal
LANGUAGE: English

AB The first RIA for a **vitamin D** metabolite utilizing a radioiodinated tracer is reported. Antibodies were generated in a goat immunized with the **vitamin D** analog 23,24,25,26,27-pentanor-C(22)-carboxylic acid of **vitamin D**, coupled directly with bovine serum albumin. The 125I-labeled tracer was prepared by reacting a 3-amino-Pr derivative of **vitamin D**-C(22)-amide with Bolton-Hunter reagent. The primary antiserum, used at a 15,000-fold final dilution, cross-reacted equally with all cholecalciferol and ergocalciferol metabolites tested except 1,25-dihydroxycalciferol metabolites and the parent calciferols; the antiserum did not cross-react with dihydrotachysterol. Calibrators were prepared in **vitamin D**-stripped human serum. 25-Hydroxycholecalciferol was quant. extracted from serum or plasma (50 µL) with acetonitrile. The assay consists of a 90-min incubation at room temperature with primary antiserum, followed by a 20-min incubation with a second antiserum and separation of bound from free fractions by centrifugation. The detection limit of the assay was 2.8 µg/L for 25-hydroxycholecalciferol. Results with the present assay compared well with those from a liquid-chromatog. procedure involving specific UV detection of 25-hydroxycalciferol in plasma.

ED Entered STN: 10 Jul 1993

L138 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 9

ACCESSION NUMBER: 1986:603794 HCAPLUS
DOCUMENT NUMBER: 105:203794
TITLE: Localization of **vitamin D**
-dependent active calcium transport in rat duodenum
and relation to CaBP
AUTHOR(S): Roche, Colette; Bellaton, Claire; Pansu, Danielle;
Miller, Alexander, III; Bronner, Felix
CORPORATE SOURCE: Ec. Prat. Hautes Etud., Lyon, 69374, Fr.
SOURCE: American Journal of Physiology (1986), 251(3, Pt. 1),
G314-G320
CODEN: AJPHAP; ISSN: 0002-9513

DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Vitamin D**-replete (+D) and **vitamin D**-deficient (-D) rats received by i.p. injection of varying amts. of 1,25-dihydroxyvitamin D₃ [32222-06-3], and 4 h (+D) or 9 h (-D) later everted duodenal sacs were prepared to evaluate active Ca²⁺ transport, i.e., the amount of Ca²⁺ found in the serosal fluid. At the same time, duodenal Ca²⁺ binding protein (CaBP) content was measured. Ca²⁺ transport was a close pos. function of CaBP content. It was not detectable when CaBP content was zero and increased linearly without plateauing as the CaBP content increased to 100 nmol Ca²⁺ bound/g mucosa. Trifluoperazine (TFP) inhibited active Ca²⁺ transport in a concentration-dependent manner. Expts. with vesicles prepared from brush-border or basolateral membranes indicated that TFP inhibited the Ca²⁺-extrusion process, with virtually no effect on Ca²⁺ entry. Thus, **vitamin D** exerts its major regulation of active Ca²⁺ transport in the rat duodenum via CaBP on transport steps beyond brush-border entry.

ED Entered STN: 13 Dec 1986

L138 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 10

ACCESSION NUMBER: 1981:477542 HCAPLUS
DOCUMENT NUMBER: 95:77542

TITLE: Calcium uptake in isolated brush-border vesicles from rat small intestine

AUTHOR(S): **Miller, Alexander, III**; Bronner, Felix

CORPORATE SOURCE: Dep. Oral Biol., Univ. Connecticut Health Cent., Farmington, CT, 06032, USA

SOURCE: Biochemical Journal (1981), 196(2), 391-401
CODEN: BIJOAK; ISSN: 0306-3275

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Ca uptake in brush border vesicles from rat duodenum showed saturation kinetics, was dependent on the pH and ionic strength of the medium and independent of metabolic energy. Ruthenium Red, La³⁺, tetracaine, EGTA, choline chloride, Na, or K readily inhibited uptake. Ca uptake apparently involves binding to membrane components as well as transport into an osmotically active space. Scatchard anal. revealed high- and low-affinity binding sites with K_a values of 2.7 + 10⁴M and 60M, resp., which bound 3.2 and 110 nmol Ca/mg protein, resp. Ca uptake was decreased in vesicles from **vitamin D**-deficient compared to normal rats, and i.p. 1,25-dihydroxycholecalciferol treatment of **vitamin D**-deficient rats 16 h before membrane isolation stimulated the initial Ca uptake activity. Ca entry and/or binding appears to be passive and may involve a carrier-mediated component associated with the brush border membrane. Alteration of the electrochem. p.d. across the membrane apparently increases binding to the membrane rather than transport into the intravesicular space.

ED Entered STN: 12 May 1984

L138 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 11

ACCESSION NUMBER: 1979:504012 HCAPLUS

DOCUMENT NUMBER: 91:104012

TITLE: Isolation of a **vitamin D**-dependent, calcium-binding protein from brush borders of rat duodenal mucosa

AUTHOR(S): **Miller, Alexander, III**; Ueng, Tzuu Huei; Bronner, Felix

CORPORATE SOURCE: Health Cent., Univ. Connecticut, Farmington, CT, 06032, USA

SOURCE: FEBS Letters (1979), 103(2), 319-22
CODEN: FEBLAL; ISSN: 0014-5793

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Brush borders separated from rat duodenal mucosa homogenate by differential centrifugation were homogenized, and a 100,000 g supernatant of the latter homogenate was chromatog. on Sephadex G-50 or G-100 to give a partially purified Ca²⁺-binding protein (I). I had a mol. weight of .apprx.18,000, making it larger than the Ca²⁺-binding protein of duodenal cytosol. I was not detectable in brush border preps. from **vitamin D**-deficient animals. Repletion of deficient animals with 1,25-dihydroxyvitamin D₃ was accompanied by the reappearance of I.

ED Entered STN: 12 May 1984

L138 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1983:27919 HCAPLUS

DOCUMENT NUMBER: 98:27919

TITLE: The effect of filipin on calcium uptake by cells and brush-border membranes from rat duodenum

AUTHOR(S): Lipton, Jeffrey H.; **Miller, Alexander, III**; Bronner, Felix

CORPORATE SOURCE: Sch. Dent. Med., Univ. Connecticut, Farmington, CT, 06032, USA

SOURCE: International Congress Series (1982), 589(Curr. Adv. Skeletogenesis), 205-10
CODEN: EXMDA4; ISSN: 0531-5131

DOCUMENT TYPE: Journal
LANGUAGE: English

AB filipin (I) [11078-21-0] stimulated the in vitro Ca uptake by duodenal cells isolated from rats fed high- and low-Ca, **vitamin D** [1406-16-2]-replete and -deficient diets for 1 wk. The quant. effect of I on Ca uptake appears to be independent of prior in vivo Ca or **vitamin D** intake. In cells from animals in the 4 diet groups which had received 1,25-dihydroxyvitamin D3 [32222-06-3] (i.p.) before sacrifice, in vitro addition of I further stimulated Ca uptake. The in vitro binding of I to brush-border membrane vesicles was independent of the **vitamin D** status or Ca intake of the animals from which the membranes were isolated. I stimulated in vitro Ca uptake by brush-border vesicles, regardless of in vivo **vitamin D** status or treatment with 1,25-dihydroxyvitamin D3 before sacrifice of the animals. Unlike ionophore A23187, which increased initial Ca uptake but did not affect equilibrium Ca content of the brush-border vesicles, I increased the Ca content of the vesicles at all studied time intervals after addition; apparently, I primarily increases Ca binding to membrane components, probably located at the inner membrane surface. In addition, the release of Ca from preloaded vesicles induced by EGTA was unaltered by I; apparently, unlike ionophore A23187, I does not have a direct ionophoretic effect on either Ca uptake or release. It is unlikely that the transport events affected by protein synthesis (and 1,25-dihydroxyvitamin D3) are the same as those events associated with the I-dependent increase in cell or organelle Ca uptake.

ED Entered STN: 12 May 1984

L138 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1982:101378 HCAPLUS
DOCUMENT NUMBER: 96:101378
TITLE: Intestinal calcium absorption
AUTHOR(S): Bronner, Felix; Pansu, Danielle; Buckley, Michael; Singh, Ravendra P.; Lipton, Jeffrey H.; **Miller, Alexander, III**
CORPORATE SOURCE: Sch. Dent. Med., Univ. Connecticut, Farmington, CT, USA
SOURCE: Calcium Phosphate Transp. Biomembr., [Int. Workshop] (1981), 135-42. Editor(s): Bronner, Felix; Peterlik, Meinrad. Academic: New York, N. Y.
CODEN: 47FXAR
DOCUMENT TYPE: Conference; General Review
LANGUAGE: English
AB A review with 18 refs. on intestinal Ca²⁺ absorption, as well as its response to **vitamin D**.

ED Entered STN: 12 May 1984

L138 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:57141 HCAPLUS
DOCUMENT NUMBER: 92:57141
TITLE: A **vitamin D**-induced, calcium-binding protein from rat intestinal brush border
AUTHOR(S): **Miller, A., III**; Ueng, T. H.; Bronner, F.
CORPORATE SOURCE: Health Cent., Univ. Connecticut, Farmington, CT, 06032, USA
SOURCE: Proceedings of the Workshop on Vitamin D (1979), 4th(Vitam. D: Basic Res. Its Clin. Appl.), 675-8

CODEN: PWVDDU; ISSN: 0721-7110

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A Ca-binding protein, purified .apprx.50-fold from duodenal brush border vesicles of the rat by differential centrifugation and Sephadex G-100 chromatog. had a mol. weight of 1.8×10^4 , and was different from cytosolic Ca-binding protein (1.1×10^4) and a larger species previously reported (S. Moriuchi, et al., 1975). No Ca-binding protein was detected in **vitamin D** [1406-16-2] deficiency, but 20 IU of 1,25-**dihydroxyvitamin D** [32511-63-0] given to **vitamin D**-deficient rats 16 h before sacrifice caused a marked increase.

ED Entered STN: 12 May 1984

L138 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1952:27250 HCAPLUS

DOCUMENT NUMBER: 46:27250

ORIGINAL REFERENCE NO.: 46:4643d-f

TITLE: Osteomalacia and renal glycosuria in adults. Metabolic investigation of a case with particular reference to the Fanconi syndrome and to treatment

AUTHOR(S): Anderson, Ian A.; **Miller, Alexander**; Kenne, Andrew P.

CORPORATE SOURCE: Victoria Infirmary, Glasgow, UK

SOURCE: Quarterly Journal of Medicine (1952), 21, 33-60

CODEN: QJMEA7; ISSN: 0033-5622

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB The case is studied of an adult female with severe osteomalacia, hypophosphatemia, mild acidosis, and renal glycosuria. **Vitamin D** in moderate doses increased the retention of Ca and P, but in high dosage had a deleterious effect on the Ca balance. Shohl's solution (140 g. citric acid and 98 g. Na citrate in 1 l. of water), 50 to 150 cc. per day, produced a well-marked increase in the retention of Ca and P, causing the serum level to rise to normal, with a loss of some pain and tenderness. Increasing the Shohl's solution to 200 cc. per day caused a fall in the serum alkaline phosphatase to normal, and led to considerable recalcification of the skeleton and healing of pathol. fractures. Methyltestosterone (25 mg. orally per day) increased the retention of Ca, P, and N and caused a fall in the excessive NH_3 and amino-acid N excretion in the urine. There was no apparent disorder of citric acid metabolism. Methyltestosterone caused a decrease in citric acid excretion. 57 references.

ED Entered STN: 22 Apr 2001

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=> d ibib abs ed 16-

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS, MEDLINE, BIOSIS, CABA, EMBASE, ANABSTR'

- CONTINUE? (Y)/N:y

YOU HAVE REQUESTED DATA FROM 12 ANSWERS - CONTINUE? Y/(N):y

L138 ANSWER 16 OF 27 MEDLINE on STN

ACCESSION NUMBER: 82117622 MEDLINE

DOCUMENT NUMBER: PubMed ID: 6895734

TITLE: Molecular and transport effects of 1,25-**dihydroxyvitamin D3** in rat duodenum.

AUTHOR: Bronner F; Lipton J; Pansu D; Buckley M; Singh R;

CONTRACT NUMBER: **Miller A 3rd**
AM 14251 (NIADDK)
AM 26174 (NIADDK)

SOURCE: Federation proceedings, (1982 Jan) 41 (1) 61-5.
Journal code: 0372771. ISSN: 0014-9446.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198204

ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 19970203
Entered Medline: 19820422

AB The saturable component of transmural calcium transport in rat duodenum is transcellular, dependent on **vitamin D**, and can be evaluated by in situ gut loops or everted sacs. **Vitamin D** action at the molecular level can be studied by **analyzing** the response in terms of calcium-binding protein (CaBP; Mr congruent to 9000) biosynthesis to exogenous 1,25-**dihydroxyvitamin D3** (1,25-(OH)₂-D₃). In **vitamin D**-replete animals, the CaBP response occurs within 1 h of intraperitoneal injection when the animals have been fed a high-calcium diet (III), but in 7 h if the animals have been fed a low-calcium diet (I). The latter response appears to be transcriptional, whereas the former seems posttranscriptional. In **vitamin D**-deficient animals, exogenous 1,25-(OH)₂-D₃ evokes a CaBP response that occurs 7-8 h after treatment and is transcriptional in nature. Calcium uptake by isolated duodenal cells can be stimulated by prior in vivo treatment with 1,25-(OH)₂-D₃. Peak response times parallel those found with CaBP biosynthesis, i.e., 3 h in cells from **vitamin D**-replete animals fed diet III, 7 h in cells from **vitamin D**-replete animals fed diet I, and 12 h in cells from **vitamin D**-deficient animal. Cycloheximide treatment appears to inhibit these responses. Moreover, everted sacs from **vitamin D**-replete animals fed diets III and I show an early and a delayed transport response, respectively. Studies with brush border membrane vesicles prepared from rat duodenum have shown calcium uptake to be **vitamin D**-dependent. Part of this uptake involves binding to the inner aspect of the membrane and may involve a high-affinity CaBP. Thus a major component of the action of **vitamin D** in stimulating calcium transport appears to involve protein synthesis. The time and molecular nature of these responses depend on the calcium intake and **vitamin D** status of the animals. A model of calcium movement through the intestinal cell is included.

ED Entered STN: 19900317
Last Updated on STN: 19970203
Entered Medline: 19820422

L138 ANSWER 17 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN

ACCESSION NUMBER: 2003:361902 BIOSIS
DOCUMENT NUMBER: PREV200300361902
TITLE: Evaluation of 25 OH **Vitamin D** in chronic renal failure subjects.

AUTHOR(S): **MacFarlane, G. D.** [Reprint Author]; **Ersfeld, D. L.** [Reprint Author]; **Sackrison, J. L. Jr.** [Reprint Author]; **Miller, A. B.** [Reprint Author]; **Bucklen, A.** [Reprint Author]

CORPORATE SOURCE: DiaSorin Inc., Stillwater, MN, USA

SOURCE: Clinical Chemistry, (June 2003) Vol. 49, No. S6, pp. A127.
print.
Meeting Info.: 55th Annual Meeting of the AACC (American
Association for Clinical Chemistry). Philadelphia, PA, USA.
July 20-24, 2003. American Association for Clinical
Chemistry.
CODEN: CLCHAU. ISSN: 0009-9147.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 6 Aug 2003
Last Updated on STN: 6 Aug 2003

ED Entered STN: 6 Aug 2003
Last Updated on STN: 6 Aug 2003

L138 ANSWER 18 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
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ACCESSION NUMBER: 2002:445336 BIOSIS

DOCUMENT NUMBER: PREV200200445336

TITLE: Clinical utility of a 1,25 dihydroxyvitamin
D RIA in the management of end-stage renal disease
patients.

AUTHOR(S): Clive, D. R. [Reprint author]; MacFarlane, G. D.
[Reprint author]; Rao, D.; Giacherio, D.; Gupta, M.;
Sackrison, J. [Reprint author]

CORPORATE SOURCE: DiaSorin Inc., Stillwater, MN, USA


SOURCE: Clinical Chemistry, (June, 2002) Vol. 48, No. 6 Supplement,
pp. A144-A145. print.
Meeting Info.: 54th Annual Meeting of the American
Association for Clinical Chemistry (AACC). Orlando,
Florida, USA. July 28-August 01, 2002.
CODEN: CLCHAU. ISSN: 0009-9147.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002

ED Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002

 L138 ANSWER 19 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
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ACCESSION NUMBER: 2002:445263 BIOSIS

DOCUMENT NUMBER: PREV200200445263

TITLE: Development of a sensitive, automated, non-extracted,
direct Liaison immunoassay for 25 OH
Vitamin D.

AUTHOR(S): Sackrison, J. L. [Reprint author]; Ersfeld,
D. L. [Reprint author]; Miller, A. B.
[Reprint author]; Olson, G. T. [Reprint author];
MacFarlane, G. D. [Reprint author]

CORPORATE SOURCE: DiaSorin, Stillwater, MN, USA

SOURCE: Clinical Chemistry, (June, 2002) Vol. 48, No. 6 Supplement,
pp. A122-A123. print.
Meeting Info.: 54th Annual Meeting of the American
Association for Clinical Chemistry (AACC). Orlando,
Florida, USA. July 28-August 01, 2002.
CODEN: CLCHAU. ISSN: 0009-9147.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002
ED Entered STN: 21 Aug 2002
Last Updated on STN: 21 Aug 2002

L138 ANSWER 20 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
STN

ACCESSION NUMBER: 1998:339444 BIOSIS
DOCUMENT NUMBER: PREV199800339444
TITLE: Pediatric reference ranges for 25-hydroxy **vitamin D** using the DiaSorin kit.
AUTHOR(S): Soldin, S. J. [Reprint author]; Murthy, J. N. [Reprint author]; Lauber, B.; **Macfarlane, G.**
CORPORATE SOURCE: Dep. Lab. Med., Children's Natl. Med. Cent., Washington, DC, USA
SOURCE: Clinical Chemistry, (June, 1998) Vol. 44, No. 6 PART 2, pp. A14. print.
Meeting Info.: 50th Annual Meeting of the American Association of Clinical Chemistry. Chicago, Illinois, USA. August 2-6, 1998.
CODEN: CLCHAU. ISSN: 0009-9147.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 12 Aug 1998
Last Updated on STN: 12 Aug 1998
ED Entered STN: 12 Aug 1998
Last Updated on STN: 12 Aug 1998

L138 ANSWER 21 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
STN

ACCESSION NUMBER: 1997:334607 BIOSIS
DOCUMENT NUMBER: PREV199799633810
TITLE: Use of the INCSTAR 25 **Hydroxyvitamin D** RIA for assessment of **Vitamin D** sufficiency.
AUTHOR(S): Beaulieu, J. [Reprint author]; **Kamerud, J.** [Reprint author]; Hawkins, D.; Hollis, B.
CORPORATE SOURCE: INCSTAR Corp., Stillwater, MN, USA
SOURCE: Clinical Chemistry, (1997) Vol. 43, No. 6 PART 2, pp. S177.
Meeting Info.: 49th Annual Meeting of the American Association for Clinical Chemistry. Atlanta, Georgia, USA. July 20-24, 1997.
CODEN: CLCHAU. ISSN: 0009-9147.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Aug 1997
Last Updated on STN: 4 Sep 1997
ED Entered STN: 5 Aug 1997
Last Updated on STN: 4 Sep 1997

L138 ANSWER 22 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
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ACCESSION NUMBER: 1996:357140 BIOSIS
DOCUMENT NUMBER: PREV199699079496

TITLE: Preliminary evaluation of an upgraded 1,25
dihydroxyvitamin D RIA.
AUTHOR(S): Beaulieu, Jacqueline; Kurkowski, Anthony; **Kamerud,**
John; Hollis, Bruce
CORPORATE SOURCE: INCSTAR Corp., Stillwater, MN, USA
SOURCE: Clinical Chemistry, (1996) Vol. 42, No. 6 PART 2, pp. S172.
Meeting Info.: 48th Annual Meeting of the American
Association for Clinical Chemistry, Inc. Chicago, Illinois,
USA. July 28-August 1, 1996.
CODEN: CLCHAU. ISSN: 0009-9147.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Aug 1996
Last Updated on STN: 26 Sep 1996
ED Entered STN: 5 Aug 1996
Last Updated on STN: 26 Sep 1996

L138 ANSWER 23 OF 27 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on
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ACCESSION NUMBER: 1986:387120 BIOSIS
DOCUMENT NUMBER: PREV198631072740; BR31:72740
TITLE: ENZYME-LINKED IMMUNOABSORPTION **ASSAY** FOR
VITAMIN D-INDUCED CALCIUM-BINDING
PROTEIN.
AUTHOR(S): **MILLER A B E** [Reprint author]; NORMAN A W
CORPORATE SOURCE: NORWICH EATON PHARMACEUTICALS, INC, NORWICH, NEW YORK
13815-0231, USA
SOURCE: Methods Enzymol., (1986) pp. 154-159. CHYTIL, F. AND D. B.
MCCORMICK (ED.). METHODS IN ENZYMOLOGY, VOL. 123. VITAMINS
AND COENZYMES, PART H. XXVI+476P. ACADEMIC PRESS, INC.,
PUBLISHERS: ORLANDO, FLA., USA; ACADEMIC PRESS INC.
(LONDON) LTD.: LONDON, ENGLAND. ILLUS.
Publisher: Series: Methods in Enzymology.
CODEN: MENZAU. ISSN: 0076-6879. ISBN: 0-12-182023-8.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 29 Sep 1986
Last Updated on STN: 29 Sep 1986
ED Entered STN: 29 Sep 1986
Last Updated on STN: 29 Sep 1986

L138 ANSWER 24 OF 27 CABA COPYRIGHT 2004 CABI on STN

ACCESSION NUMBER: 87:3231 CABA
DOCUMENT NUMBER: 19871490663
TITLE: Localization of **vitamin D**
-dependent active Ca²⁺ transport in rat duodenum and
relation to CaBP
AUTHOR: Roche, C.; Bellaton, C.; Pansu, D.; **Miller, A.,**
III; Bronner, F.
CORPORATE SOURCE: Ecole Pratique des Hautes Etudes, 69374 Lyon Cedex
08, France.
SOURCE: American Journal of Physiology, (1986) Vol. 251, No.
3, I, pp. G314-G320. 46 ref.
ISSN: 0002-9513
DOCUMENT TYPE: Journal
LANGUAGE: English
ENTRY DATE: Entered STN: 19941101

Last Updated on STN: 19941101

AB **Vitamin D-replete (+D) and vitamin D-deficient (-D) rats** received by intraperitoneal injection different amounts of 1,25-**dihydroxycholecalciferol** and 4 h (+D) or 9 h (-D) later everted duodenal sacs were prepared to evaluate active calcium transport, i.e., the amount of Ca found in the serosal fluid. At the same time, duodenal Ca-binding protein (CaBP) content was estimated. Ca transport was a close positive function of CaBP content. It was not **detectable** when CaBP content was zero and increased linearly without plateauing as CaBP content increased to 100 nmol calcium bound per g mucosa. Trifluoperazine (TFP) inhibited active Ca transport in a concentration-dependent manner. Experiments using vesicles prepared from brush-border or basolateral membranes indicated that TFP inhibited the Ca-extrusion process, with almost no effect on Ca entry. It is concluded that **vitamin D** exerts its major regulation of active Ca transport in the rat duodenum via CaBP on transport steps beyond brush-border entry.

ED Entered STN: 19941101
Last Updated on STN: 19941101

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ACCESSION NUMBER: 2004374563 EMBASE
TITLE: Dairy foods, calcium, and colorectal cancer: A pooled **analysis** of 10 cohort studies.
AUTHOR: Cho E.; Smith-Warner S.A.; Spiegelman D.; Beeson W.L.; van den Brandt P.A.; Colditz G.A.; Folsom A.R.; Fraser G.E.; Freudenheim J.L.; Giovannucci E.; Goldbohm R.A.; Graham S.; **Miller A.B.**; Pietinen P.; Potter J.D.; Rohan T.E.; Terry P.; Toniolo P.; Virtanen M.J.; Willet W.C.; Wolk A.; Wu K.; Yaun S.-S.; Zeleniuch-Jacquotte A.; Hunter D.J.
CORPORATE SOURCE: E. Cho, Channing Laboratory, 181 Longwood Ave., Boston, MA 02115, United States. eunyoung.cho@channing.harvard.edu
SOURCE: Journal of the National Cancer Institute, (7 Jul 2004) 96/13 (1015-1022).
Refs: 61
ISSN: 0027-8874 CODEN: JNCIAM
COUNTRY: United Kingdom
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
016 Cancer
017 Public Health, Social Medicine and Epidemiology
037 Drug Literature Index
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Background: Studies in animals have suggested that calcium may reduce the risk of colorectal cancer. However, results from epidemiologic studies of intake of calcium or dairy foods and colorectal cancer risk have been inconclusive. Methods: We pooled the primary data from 10 cohort studies in five countries that assessed usual dietary intake by using a validated food frequency questionnaire at baseline. For most studies, follow-up was extended beyond that in the original publication. The studies included 534 536 individuals, among whom 4992 incident cases of colorectal cancer were diagnosed between 6 and 16 years of follow-up. Pooled multivariable relative risks for categories of milk intake and quintiles of calcium intake and 95% confidence intervals (CIs) were calculated. All statistical **tests** were two-sided. Results: Milk intake was related to a reduced risk of colorectal cancer. Compared with the lowest category of intake (<70 g/day), relative risks of colorectal cancer for increasing

categories (70-174, 175-249, and ≥ 250 g/day) of milk intake were 0.94 (95% CI = 0.86 to 1.02), 0.88 (95% CI = 0.81 to 0.96), and 0.85 (95% CI = 0.78 to 0.94), respectively (P(trend) < .001). Calcium intake was also inversely related to the risk of colorectal cancer. The relative risk for the highest versus the lowest quintile of intake was 0.86 (95% CI = 0.78 to 0.95; P(trend) = .02) for dietary calcium and 0.78 (95% CI = 0.69 to 0.88; P(trend) < .001) for total calcium (combining dietary and supplemental sources). These results were consistent across studies and sex. The inverse association for milk was limited to cancers of the distal colon (P(trend) < .001) and rectum (P(trend) = .02). Conclusion: Higher consumption of milk and calcium is associated with a lower risk of colorectal cancer. .COPYRG. Oxford University Press 2004, all rights reserved.

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ACCESSION NUMBER: 2002441918 EMBASE
TITLE: Nutrition in seniors: Why a multivitamin is necessary.
AUTHOR: **Miller A.L.**
CORPORATE SOURCE: A.L. Miller, Comm./Fam. Practice Outpatient Diet.,
Sunnybrook and Women's College, Hospital Health Sciences
Center, Toronto, Ont. M5S 1B6, Canada.
andrea.miller@swchsc.on.ca
SOURCE: Geriatrics Today: Journal of the Canadian Geriatrics
Society, (2002) 5/4 (190-192).
Refs: 10
ISSN: 1496-3892 CODEN: GTEOAP
COUNTRY: Canada
DOCUMENT TYPE: Journal; (Short Survey)
FILE SEGMENT: 017 Public Health, Social Medicine and Epidemiology
020 Gerontology and Geriatrics
029 Clinical Biochemistry
037 Drug Literature Index
LANGUAGE: English

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AB An RIA kit is described (INCSTAR Corp., Stillwater, MN) involving the use of an amine derivative of 22,23,24,25,26-pentanorcalciferol coupled with ¹²⁵I-labelled Bolton - Hunter reagent as **tracer** and a second antibody donkey anti-goat IgG - polyethylene glycol, as precipitating agent. 25-**Hydroxycholecalciferol** (I) was extracted from serum or plasma (50 μ l) with acetonitrile (500 μ l) and the extract (25 μ l) was mixed with **tracer** solution (50 μ l) and antibody solution (1 ml). After incubation at room temperature for 90 min, the mixture was mixed with Donkey anti-goat IgG solution (0.5 μ l), incubation was continued for 30 min and the mixture was centrifuged. The sensitivity of the RIA was 2.8 ng ml.minus.1 of I. Within- and between-**assay** coefficient of variation were 7 and 15%. Recovery was 97.3%.

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AN 55(12):F403 ANABSTR
TI New methods for the quantitation of 25 (OH) vitamin D.
AU **Kamerud, J. Q.** (R&D Group, Incstar Corp, Stillwater, MN 55082,
USA)
SO Eur. Clin. Lab. (1992), 20
DT Journal
LA English

